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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,401	06/12/2006	Francois Roederer	291286US6PCT	2823
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER
			1791	
			NOTIFICATION DATE	DELIVERY MODE
			09/09/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/582,401	<b>Applicant(s)</b> ROEDERER ET AL.	
	<b>Examiner</b> John Hoffmann	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) 19-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/12/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election with traverse of Group I in the reply filed on 4/18/2008 is acknowledged. The traversal is on the ground(s) that there is no serious burden. This is not found persuasive because a serious burden is only required under US practice. This standard is not the relevant standard for 371 applications.

The requirement is still deemed proper and is therefore made FINAL.

Claims 19-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 4/18/2008.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 requires that the motor acts directly on the roving package. Applicant's figure 1 shows the motor in a manner that one of ordinary skill would reasonable see as being indirect. It is unclear what is meant by the term "directly".

***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 12 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Droux WO 02/084005 (or Droux 2004/054147) in view of Picone 4345927

Morioka 4368232.

Since the WO document is not in English, the US document will be relied on to show what is disclosed in the WO document.

As to the claim 1 preamble: see [0073] of Droux. The paying-out step is shown at figure 1: 1 is the package, on spindle 2, that is directly acted on by the motor 3. In light of [0089] which disclose that the bundle speed is constant at the inlet, it is deemed that the speed of the fiber at all positions is constant.

The passing of the nozzle is shown in figure 3: roving 4 passes through the top entry of nozzle 13 and then through the exit. 18 and 19 are reasonably injection ports; [0085] and [0086] describe them as air and water supplies respectively- the use of centerlines reasonably suggest that 18 and 19 are perpendicular/transverse to the nozzle - and thus the fluids enter transversely.

Droux does not state that the fluid is directed to the exit. However, [0013] indicates that Picone shows how to use a nozzle to throw a roving. Picone reasonably discloses a nozzle where the fluid is directed toward the exit (at col. 5, lines 12-16). It would have been obvious to use a Picone principles of nozzle throwing, because it is the only type disclosed by Droux as being workable. Since Picone also teaches that the speed of the fiver is increased, it is deemed that the tension is also inherently increased. The roving is shown as taught, this strongly suggests that tension is applied.

As to the dividing of the roving: See Droux [0082]

As to the throwing in an oscillatory movement, See Droux: [0089].

Claim 14: the specification fails to disclose any examples or reasonably describes what is meant by the head loss being higher. Thus it is deemed that the claim requires any head loss (whatsoever) at the entry that is in any way higher than any head loss whatsoever at the exit. It is clear that the since the entry is higher than the exit, the head loss at the entrance would be higher than the head loss at the exit.

Claim 15: [0015] of Droux discloses that rovings are made. Applicant discloses at page 1, lines 34-35 of the specification that a roving generally comprises 2-50 strands. Thus the plain reading is that Droux reasonably has 2-50 strands.

Claim 16: the prior art does not indicate what the pressure is. However it is clear from the disclosure, that applicant's fluid has a different pressure at different locations, the gas quickly equilibrates to having no pressure above atmospheric. It is deemed it would have been obvious to supply the Droux gas at whatever pressure one desires - for example prior to its introduction to the nozzle.

Alternatively, it would have been obvious to perform routine experimentation to determine the optimal pressure, based on the nozzle dimensions and the desired speed of the fibers. One of ordinary skill would immediately understand that pressure is a result effective variable. The steeper a pressure gradient, the faster the gas flow across the gradient - and thus the more energy/tension transferred to the strands.

Claim 17: see [0084].

Claims 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Droux WO 02/084005 (or Droux 2004/054147) in view of Picone 4345927 as applied to claim 12, and further in view of Miller 6491773.

Droux does not disclose the use of an encoder coupled to a pulley to measure the speed of the roving. Miller teaches such an arrangement when despooling fibers (figures 3-4 and col. 7, lines 1-3) so as to allow better control of the dancer position, better track fiber usage and to detect any malfunctions in fiber travel (Miller, abstract). It would have been obvious to apply such a control device with the Droux apparatus for any or all of the reasons Droux espouses its use.

Claim 18 is directed to the fiber tension. Miller (at col 1, line 13) indicates that there is an optimum fiber tension. It would have been obvious to perform routine experimentation to determine the optimal tension in the Droux process.

**2144.05 [R-1] Obviousness of Ranges**

See MPEP § 2131.03 for case law pertaining to rejections based on the anticipation of ranges under 35 U.S.C. 102 and 35 U.S.C. 102/103.

**II. OPTIMIZATION OF RANGES**

**A. Optimization Within Prior Art Conditions or Through Routine Experimentation**

Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (Claimed process which was performed at a temperature between 40°C and 80°C and an acid concentration between 25% and 70% was held to be prima facie obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100°C and an acid concentration of 10%.); >see also Peterson, 315 F.3d at 1330, 65 USPQ2d at 1382 ("The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages.");< \*\* In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969) (Claimed elastomeric polyurethanes which fell within the broad scope of the references were held to be unpatentable thereover because, among other reasons, there was no evidence of the criticality of the claimed ranges of molecular weight or molar proportions.). For more recent cases applying this principle, see Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989); In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990); and In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997).

**B. Only Result-Effective Variables Can Be Optimized**

A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) (The claimed wastewater treatment device had a tank volume to contractor area of 0.12 gal./sq. ft. The prior art did not recognize that treatment capacity is a function of the tank volume to contractor ratio, and therefore the parameter optimized was not recognized in the art to be a result-effective variable.). See also In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (prior art suggested proportional balancing to achieve desired results in the formation of an alloy).



Furthermore, the tension by itself is not a very relevant measure. A high tension for a large roving is typically equivalent to a low pressure on a small roving. For example a roving with twice as many fibers would reasonably require twice as high tension.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hedden, Drummond, Shirai and Binner are cited as being directed to some of the unclaimed subject matter disclosed in the present application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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